

CAPSULE SUMMARY OF ACTIVE TASKS

October 1, 2006

UNITED STATES MEMBER STATE SUPPORT PROGRAM TO IAEA SAFEGUARDS

**DEPARTMENT OF ENERGY
DEPARTMENT OF STATE
NUCLEAR REGULATORY COMMISSION
DEPARTMENT OF DEFENSE**

**INTERNATIONAL SAFEGUARDS PROJECT OFFICE
BROOKHAVEN NATIONAL LABORATORY
UPTON, LONG ISLAND, NEW YORK 11973**

Currently Active Tasks

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
A.116		Field Support Instruments and Techniques [USA A 931 / R. Carchon]				
	A.116.83		LANL	\$248,000.00	\$246,413.00	Cascade Header Enrichment Monitor (CHEM) - This subtask may be closed when the IAEA confirms that the deliverable is acceptable.
A.202		Separation of Plutonium Isotopes for the Production of High Purity Spike Reference Materials [USA A 909 / D. Donohue]				
			LANL	\$17,100.00	\$17,100.00	There was no activity planned for this quarter.
			NBL	\$147,225.00	\$76,624.00	Steve Goldberg continued to work on the preliminary project plan and maintained contact with the Steering Committee. NBL has a new chemist, Stefan Vogt, who will support this task. Dr. Vogt began reviewing the project requirements and the current status of the project activities.
			ORNL	\$101,612.00	\$101,612.00	There was no activity during this quarter. The funding for this task was redirected to Task B.082. The remaining activity for this task is to ship the production portion (4.5g) of the FP-33 to the IAEA. The IAEA will notify ORNL when the shipment should occur, which will be no earlier than December 2006.
A.218		Controlled Potential Coulometry of 1 mg Pu with SRL Coulometer [USA A 1049 / S. Balsley]				
			SRNL	\$363,023.00	\$282,103.00	There has been no activity reported for this quarter.
A.233		NDA Verification Techniques for BRN Enrichment Plant [USA A 1157 / R. Lafolie]				
			ORNL	\$561,870.00	\$561,870.00	This task is on stand by.

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A.241		Development of Integrated Review Software for UMS [USA A 1238 / C. Liguori]				
			LANL	\$402,000.00	\$348,499.95	LANL Integrated Review Software (IRS) - There has been no activity reported this quarter.
	A.241.01		LANL	\$168,870.00	\$59,568.74	Adoption of Operator Provided Declarations (OPD) Data into Generic Software - The requirements document has been reviewed by the IAEA and approved. A software design document will be completed and sent to the Agency. The OPD software is planned to be released with the Baseline 3 delivery in early CY 2007.
	A.241.02		LANL	\$123,000.00	\$43,078.22	Prototype Analysis Module - Significant progress was made in developing the Event Analysis module (CoEventAnalysis) for use by the Rokkasho NDAR system. Updates to the Generic Integrated Review Software (IRS) Interface Specification and the Radiation Review Interface Specification were made. A week-long meeting was held at LANL in July with IAEA and EURIWARE to work out design and implementation issues. Further work to be done is the incorporation of the new Relative Threshold event identification algorithm into the Event Analysis module and the finalization of the documentation.
	A.241.03		LANL	\$27,000.00	\$4,986.00	Implementation of VXi Integrated Fuel Monitor (VIFM) Analysis - This task involves support to the IAEA to integrate the VIFM Analysis COM written by the IAEA. There has been no activity reported for this quarter.
	A.241.04		LANL	\$74,000.00	\$3,844.00	Integrated Review Software (IRS) Upper Layer Redesign and Standardization - There has been no activity reported for this quarter.

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A.242		Evaluation of Miniature GRAND Electronic Unit [USA A 1239 / Y. Lee]				
	A.242.02		LANL	\$220,000.00	\$206,889.00	MiniGRAND Commercialization - Some of the Mini Gamma Ray and Neutron Detectors (MiniGRAND) designed by LANL are experiencing unsatisfactory performance of the Digital Camera Module (DCM) component board in an elevated humidity environment. This DCM humidity performance issue has been reported for the past year and still needs to be addressed. Canberra Albuquerque submitted a proposal to ISPO requesting funding for additional MiniGRAND testing by LANL and Canberra Albuquerque to identify the DCM board performance issue. The SSTS declined to fund this proposal. LANL has indicated that this problem cannot be resolved or investigated, since neither LANL nor Canberra Albuquerque have funding to perform the humidity tests properly. The DCM board's unsatisfactory humidity performance issues can be determined to fall under the task of commercialization. LANL requested that this project remain open to address potential commercialization issues. These issues include parts obsolescence, packaging, and design issues.
	A.242.06		LANL	\$714,000.00	\$669,422.46	MiniGRAND Microprocessor Board (MPB) Upgrade - LANL completed addressing license issues with Technology Transfer and transmitted the information necessary to produce the MPB to Canberra Albuquerque. LANL worked to resolve problems relating to copying from the internal card to the removable card. LANL modified the firmware to ensure that the MiniGRAND functionality with the new MPB would match that of the current MiniGRAND using the old MPB.
	A.242.09		LANL	\$19,000.00	\$17,384.00	MiniGRAND and Auxiliary Communication Device (ACD) Testing - Further ACD testing was completed in conjunction with subtask E122.06. These tests included long transmission line tests and environmental tests. It is anticipated that this subtask may be closed out by the end of the 2006 calendar year. LANL suggested that a comprehensive approach with clearly defined deliverables and funding be identified for the commercialization process.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
A.247		Support for the Development of the SG System at Rokkasho Reprocessing Plant [USA A 1351 / C. Creusot]				
	A.247.05		LANL	\$814,000.00	\$787,108.75	Rokkasho Reprocessing Plant (RRP) Integration of Inspection Equipment - Two low voltage redundancy boxes have been fabricated and sent to Japan for use in the TCVS (Temporary Canister Verification System). Documentation on the TCVS is being prepared. This task will be complete when the TCVS calibration is finished (planned for late fall 2006).
	A.247.09		LANL	\$176,000.00	\$174,117.88	RRP Project Coordination - This subtask enables regular reporting to the IAEA and ISPO concerning all LANL work for the Rokkasho Reprocessing Plant (RRP). This work has been completed, according to the original requirements. LANL considers this task closed. Other means of supporting coordination of IAEA work at RRP is being discussed. ISPO will receive IAEA concurrence prior to closing this
	A.247.18		LANL	\$191,000.00	\$120,221.27	Stand-Alone Integrated Review Software (IRS) and Training - This subtask concerns the provision of an IRS (Integrated Review System) based on generic LANL software, but tailored for use at the Rokkasho Reprocessing Plant (RRP). This system is intended to be used as an interim and backup review system to the Integrated Inspector Information System (I3S). The next step in this project is to enter the numerical constants (threshold, dead time, and calibration parameters) for the remaining Nondestructive Assay (NDA) measurement systems, which is planned for the end of 2006. LANL support work will continue in 2007, as the inspectors receive data from all NDA systems as RRP goes into full operation.
	A.247.19		LANL	\$960,500.00	\$810,531.68	Unattended and Remote Monitoring (UNARM) Tool COM Support for NDAR - This subtask involves the conversion of existing LANL software to component object modules (COMs) to support the Nondestructive Assay Review (NDAR) system at the Rokkasho Reprocessing Plant (RRP). While there have been unanticipated delays, the LANL Rokkasho software development effort is essentially complete. These recent delays were due to the large number of action items identified during the July 2006 meeting between the IAEA, EURIWARE (NDAR developer), and LANL. There were about seventy items identified in the software and documentation. These items have been addressed by LANL. The analysis and import modules and most of the infrastructure modules are complete. The error logging components still need some work. Formal testing needs to be completed. The IAEA raised concerns about the progress of this task after LANL submitted its report. These concerns will be discussed between the IAEA, ISPO, and LANL in October.

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	A.247.20	LANL	\$109,000.00	\$14,913.63	Calibration of Safeguards Equipment at RRP - This subtask involves the calibration of three Rokkasho Reprocessing Plant (RRP) systems: the Improved Plutonium Canister Assay System (iPCAS), the Directional Canister Passage Detector (DCPD), and the Mixed Oxide Storage Containment and Surveillance System (MSCS). The iPCAS calibration will be done during the production of the initial RRP MOX material. LANL is revising the draft calibration procedure to reflect IAEA concerns. The goal is to have this work completed well before LANL participates in the calibration exercise, which is planned for late fall
A.248	Gate Monitor at LWRs Loaded with MOX Assemblies [JNT USA A 1356 / T. Pochet]	LANL	\$330,000.00	\$308,761.07	LANL has begun the calibration activity. They anticipate shipping the hardware to Vienna within the month.
A.250	Enhanced ANM Capability for HKED Software at SAL [USA A 1369 / N. Doubek]				
	A.250.01	LANL	\$165,000.00	\$165,203.00	
	A.250.02	LANL	\$140,000.00	\$61,014.39	This subtask will provide the IAEA with updated Hybrid K-Edge Densitometry (HKED) software, which will provide new analytical capabilities for use in nondestructive assay of special nuclear material solutions. An option for second-order polynomial for KED delta-mu calibration was added. Second-order polynomial KED calibration was included in the user manual. LANL visited SAL to agree on a work plan for lab measurements at SAL and ITU. A method to normalize x-ray intensity for XRFD was devised. A detailed report of the August 2006 HKED technical meeting at SAL was prepared. A report of near-term and long-term features in the LANL HKED software desired by IAEA and ITU was drafted.
A.251	Expert - Instrumentation Systems [USA E 1372 / M. Aparo]	CFE	\$567,486.66	\$567,460.01	This cost-free expert assignment was completed in April 2006.
	A.251.02	Aquila	\$85,500.00	\$85,501.00	Support to Chernobyl Installation - James Halbig traveled to Vienna and Ukraine in July with IAEA staff to assist with the installation of the Chernobyl shelter safeguards system (which was developed under Task C.111). Dr. Halbig has completed the requested services as described in the Statement of Work. A final report with an invoice will be submitted to BNL. This subtask is complete.

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A.252		Field Support and Implementation [USA A 931 / R. Carchon]				
	A.252.14		LANL	\$146,000.00	\$127,037.74	FDMS and RR Codes - The integration of the Fork Detector Measurement Software into the Integrated Review System software is considered complete. ISPO will verify with the Agency if this task can be closed.
	A.252.16		LANL	\$34,500.00	\$34,500.00	Recalibration of the Hulls Measurement and Monitoring System (HMSS) - ISPO is waiting for the IAEA to accept the final report.
	A.252.19		ORNL	\$78,000.00	\$73,084.00	ORIGEN Evolution Code Development for Safeguards - The RBMK-1000 SCALE/TRITON models were used to develop ORIGEN-ARP libraries. These SCALE models were validated in nuclide-assay comparison studies. Libraries were prepared for three enrichment levels (1.8 %, 2.0 %, and 2.2 % of 235U) and for coolant densities from 0.15 to 0.80 g/cc. The burnup range covered was to 25,000 MWd/T, at a power level of 16 MW/T. A set of libraries was prepared that covered the burnup range in ten steps. A separate twenty step set was prepared. These libraries were verified against TRITON sample runs. A report has been prepared that details the TRITON models, the validation of the models, the details of the libraries, and the library verification exercises. Work is nearing completion on this report. Peer review will begin soon.
	A.252.21		ORNL	\$36,000.00	\$35,042.00	Implementation of the Multi-Group Beta Ray Calculation System BETA-S-3.1 in the ORIGEN ARP Package - Initial work to upgrade the BETA-S code to calculate beta emission spectra to interpret spent fuel imaging measurements made using the DCVD was completed. The executable code was made available to the IAEA for implementation and testing. A draft letter report describing the upgrades and testing performed by ORNL was submitted to IAEA. The report will be finalized after IAEA review comments and recommendations are received.
	A.252.22		LANL	\$86,292.87	\$0.00	Advanced Experimental Fuel Counter - This subtask was approved by the SSTS in September 2006.

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A.258		Detection System for In Situ Measurements of Neutron Signatures from Spent Fuel Storage Containers [USA A 1434 / Y. Lee]	LANL	\$180,000.00	\$223,955.00	This task involves the design of a detector with the capability of in situ reverification of nuclear material inventory inside dry storage casks (both concrete and metal). The project had a cost overrun, without delivery of the project scope. Spending on this project has been frozen. The IAEA has prepared a user requirements document for the field deployable detector. The IAEA has requested that LANL review this document. ISPO has requested that LANL submit a proposal for completion of this task, when they finish the user requirements review.
A.262		Coordinated Experts' Meeting on Noble Gas Monitoring and Sampling [JNT USA A 1494 / J. Whichello]	BNL/ES&T	\$25,000.00	\$23,722.00	
			PNNL	\$117,194.00	\$90,454.54	The IAEA noble gas group project is nearing completion. The IAEA sent the final report to PNNL. PNNL completed the review of the report. PNNL contacted the IAEA regarding finalizing the work on this task, which would involve a trip to Vienna to present the results. PNNL is waiting for an IAEA response.
A.263		Traceability of DA Measurements - Provision of NBL Certified Reference Materials [USA A 1496 / S. Balsley]	NBL	\$103,000.00	\$35,799.00	NBL committed to supply the IAEA Safeguards Analytical Lab (SAL) with fifteen units of plutonium metal standard CRM 126A. NBL maintained contact with SAL during this quarter. NBL is working towards completing the delivery of the fifteen units to the IAEA. The delay is due to NBL awaiting the shipment of the CRMs from LANL.
A.264		Analytical Quality Control - Participation of SAL in NBL SME Programme [USA A 1497 / S. Balsley]	NBL	\$25,000.00	\$21,331.75	There has been no activity reported for this quarter.

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A.265		Environmental Sampling Evaluation Support [USA A 1498 / W. Fuhr]	ORNL	\$212,000.00	\$213,392.00	Diane Fischer (ORNL) presented a joint IAEA/ORNL paper at the INMM annual conference, which compares the isotopic properties of enriched uranium produced through two enrichment scenarios. The SSTS approved an extension of this task to include three consulting visits during the next twelve months. The first is scheduled for Oct-Nov 2006.
	A.265.02		ORNL	\$134,000.00	\$9,281.00	
A.266		Expert - Unattended and Integrated Monitoring Systems [USA E 1584 / M. Zendel]	IAEA	\$230,000.00	\$72,353.32	The expert Diana Langner began her CFE assignment with the IAEA in August 2006.
A.267		Development of ISOCS Self Modeling Capabilities [USA A 1607 / L. Bourva]	IAEA	\$193,000.00	\$0.00	This project is on hold, until the IAEA places a purchase order with Canberra Albuquerque.
A.268		Improvement of NWAL Capability in Gamma Spectrometric Anlysis for U/Pu and Fission and Activation Products [USA A 1619 / M. Nikkinen]	LLNL	\$180,000.00	\$5,941.74	Funding for this task was received in July 2006. Parts of the large area detector system to be evaluated have been received. Tzu Fang Wang (LLNL) is modifying the GAMANAL code to work with the new detector. The system will be installed and testing will begin in October 2006.
A.269		Support for Novel Technologies [USA A 1616 / J. Whichello]	PNNL	\$6,220.00	\$0.00	This task is funding a PNNL employee to travel to LLNL to brief the IAEA (Julian Whichello) on novel technologies.
A.270		Expert - SAL SIMS [/]	IAEA	\$200,000.00	\$0.00	The IAEA selected John Cliff, PNNL, for this position and the SSTS approved the task in September. Dr. Cliff is expected to begin the assignment in January 2007.

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B.080		Training Workshop in Design Information Review for the Entire Life Cycle of Research Reactors [USA B 984 / P. Rodriguez]				
			BNL/SAC	\$305,000.00	\$305,000.00	
			ORNL	\$0.00	\$0.00	This task is on stand by.
	B.080.01		ISPO	\$90,200.00	\$90,200.00	This task is on stand by.
B.082		Safeguards Training Course: Enrichment Technology [USA B 1001 / M. Hunt]				
			ORNL	\$493,020.00	\$492,372.00	ORNL transmitted a hard copy set of the "Safeguards Training Course, Nuclear Material Safeguards for Uranium Enrichment Plants," ISPO-347/R7, Parts 1-4 (ESP06-089), to ISPO. The chart books were used for the Nuclear Material Safeguards for Uranium Enrichment Plants training class held in Vienna during June 2006.
B.084		Revision of Introductory Course on Agency SG (ICAS) [USA B 1106 / H. Barroso]				
			Sonalysts	\$536,118.00	\$516,467.00	
						This task is on stand by.
B.088		Enhanced Communication Skills [USA B 1245 / M. Hunt]				
	B.088.01		Sonalysts	\$26,500.00	\$24,404.00	The Agency has requested that the Enhanced Communications Skills course be updated to reflect the current Safeguards environment. Sonalysts has been asked to provide two sessions of the Enhanced Communications Skills course: one for the students of the 55th ICAS, and one during the following week for experienced inspectors. ISPO is working with Sonalysts and the SSTS to address this request.
B.090		Workshop on Quality Assurance Techniques [JNT USA B 1277 / D. Neal]				
	B.090.02		IAEA	\$180,000.00	\$0.00	The IAEA has renewed its contract with Stat-a-Matrix. Training is being scheduled to begin in November 2006.

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B.091	[Agency# / Task Officer] Training on Remote Monitoring and Unattended Monitoring [USA B 1337 / P. Hypes]				
B.091.03		LANL	\$355,500.00	\$251,307.14	Radiation Review Software Training - The Radiation Review course was presented again in September 2006. No new funding was required to present this course. Feedback on this presentation of the course will be available in the next capsule summary.
B.091.03		Sonalysts	\$181,500.00	\$117,313.00	Radiation Review Software Training - This task is complete. Sonalysts performed no work on this task during this quarter.
B.093	IAEA Participation in U.S. Sponsored Training Courses [USA B 0086 / P. Hypes]				
B.093.05		LANL	\$788,986.00	\$704,003.16	Advanced Plutonium Verification Techniques (APVT) - There was no activity this quarter. ISPO received a request for APVT training in 2007.
B.093.06		LANL	\$1,225,748.00	\$1,118,162.17	NDA Training - The 47th Nondestructive Assay Inspector Training Course for IAEA Inspectors was held from August 15 to 25, 2006. The course was attended by fifteen IAEA inspectors and one DOE official. The course coordination with regard to facilities, nuclear material moves, and instruction went smoothly. Several equipment failures occurred during the course, caused by wear and tear due to repeated use. One AMSR failed. Multiple items failed, or had to be replaced, while performing the two-tube neutron detector experiments, including: one short He-3 tube, three high voltage cables that had intermittent shorting problems, and one junction box. All of these items were replaced in real time with borrowed items. There was relatively little impact on the instructional activities. ISPO received a request for multiple sessions of NDA training in 2007.
B.093.07		BIL	\$24,500.00	\$0.00	Expert Support to ICAS - This task is on stand by.
B.093.07		LANL	\$73,100.00	\$73,100.00	Expert Support to ICAS - This task is on stand by.
B.093.07		SRNL	\$47,000.00	\$45,065.00	Expert Support to ICAS - This task is on stand by.

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B.094		Neutron Pulse Simulator for Training and Testing [USA B 1401 / P. Hypes]	LANL	\$543,300.00	\$542,446.78	The Neutron Pulse Simulator User Interface Upgrade is complete. The software has been updated with an additional display showing detector setup parameters and isotopic composition. The software has been tested. The manual has been updated to include this new user interface option. The new software has been sent to the IAEA and notification of its receipt has been received. The updated User Manual, newly written Job Aids, and a technical reference were all included with the final deliverable for this project. ISPO is waiting for the IAEA's review and acceptance of this work.
B.096		Workshop on Additional Protocol Activities [USA B 1415 / M. Hunt]	BNL/NCT	\$343,061.00	\$260,216.00	There was no activity this quarter. BNL received positive feedback on the pilot course, which was delivered in June.
B.098		Enhanced Observational Skills [USA B 1446 / M. Hunt]	Sonalysts	\$258,000.00	\$253,397.00	
	B.098.02		Sonalysts	\$41,000.00	\$25,365.00	The Agency has requested two deliveries of the Enhanced Observational Skills course: one for the students of the 55th ICAS, and one during the following week for experienced inspectors. ISPO is working with Sonalysts and the SSTS to address this request.
B.099		Physical Inventory Taking Computer Based Training [USA B 1464 / V. Cisar]	BMI	\$192,152.06	\$114,363.17	The CBT is complete except for the voice recording. Copies of the most recent text for the voice was sent to the IAEA.

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B.101		Expert - Senior Instrumentation Specialist - Training in NDA Equipment and Procedures [USA B 1418 / A. Hamilton]	IAEA	\$450,001.01	\$304,336.66	The NDA portion of the 54th Introductory Course on Agency Safeguards was coordinated and taught. This involves one month of daily contact with the new inspectors, giving lectures, supervising laboratory exercises, and coordinating logistical support, other instructors, and the use of facilities at Seibersdorf and the Prater Institute. Improvements suggested and conceived during the 53rd ICAS were implemented. Improvements for the next ICAS are underway. Coordination is proceeding for the Radiation Review Software course being held in September. The headquarters portion of the August 2005 NDA Techniques course at Los Alamos National Laboratory was held. Long term plans for the NDA Techniques course and Advanced Plutonium Verification Techniques course are being evaluated. Work is proceeding in cooperation with Los Alamos National Laboratory on the Neutron Pulse Simulator, which will greatly improve the neutron training provided in ICAS and during impromptu training sessions with inspectors. Impromptu training was provided to experienced inspectors who were preparing to go on inspections.

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C.111		Safeguards System for Chernobyl Unit 4 [JNT USA E 1445 / A. Zatsepin]				
			BNL/NCT	\$281,000.00	\$241,828.00	The Chernobyl Unit 4 (Shelter) Access Point Monitoring System was installed. BNL had no activity under this subtask during this quarter; spending was for administrative purposes only.
			Sonalysts	\$246,000.00	\$188,417.00	Colin Carroll (Sonalysts) provided project management support to the IAEA for the implementation of nuclear safeguards at Chernobyl Unit 4 (Shelter). Mr. Carroll assisted the IAEA with the installation of a Combined Radiation and Surveillance Monitoring (CRSM) system at the Chernobyl Shelter. Mr. Carroll and IAEA experts drafted a CRSM installation guide, which detailed the design and construction of the CRSM system and specified the tests that the CRSM installation team would perform to check the operation of the system once installed. He traveled with the IAEA to Chernobyl in August 2006 to install the system. Mr. Carroll documented the CRSM installation and updated the CRSM guide to reflect the as installed system. He assisted the IAEA and LANL experts with system testing and test documentation.
	C.111.01		LANL	\$60,900.00	\$52,033.85	Instrument Assistance to the Chernobyl Shelter - LANL provided technical consultations regarding the use of Chernobyl safeguards systems. Technical assistance with the manufacturing of spare electronics sets was provided.
	C.111.02		LANL	\$75,000.00	\$64,857.32	Mini Analog to Digital Converter (MiniADC) Chernobyl Shelter Installation Support - Mike Browne (LANL) traveled to Chernobyl for two weeks to install and characterize safeguards equipment, including the Access Point Monitoring System. Dr. Browne traveled to Vienna for a one-week wrap-up meeting, including documentation. A complete description of installation, calibration, and characterization was delivered to the IAEA. Configuration files were delivered. The installation team attended an exit meeting with Alexander Novikov, who described the current and known future status of Chernobyl. It became clear that a substantial safeguards effort would be required over the next several years. One storage scenario is very similar to the BN-350 facility in Kazakhstan. It is suggested that the IAEA, LANL, and Colin Carroll discuss an approach that would be mutually beneficial to both facilities by pulling resources from both (NA21 (BN-350) and USSP (CHNPP)). This installation was organized by Nina Wilson of the IAEA. LANL has indicated their work for this subtask is complete. ISPO will obtain IAEA concurrence prior to subtask closeout.

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	C.111.03	IAEA	\$23,000.00	\$23,000.00	UMS Electrical Installation Support - This subtask involves electrical work at the Chernobyl Nuclear Power Plant (ChNPP). The IAEA has a direct contract with ChNPP to perform this work. The electrical work has been completed and the ChNPP has been paid. ISPO has received IAEA concurrence and this subtask is closed.
C.112	Consultant - Development Support for Integrated Safeguards [USA C 1451 / D. Hurt]				
	C.112.02	BNL/NCT	\$16,000.00	\$0.00	Historical Paper on Containment/Surveillance and Timeliness - There was no activity this quarter. ISPO is determining whether this project is still needed.
	C.112.02	BNLCONTR	\$78,500.00	\$30,229.00	The consultant James Larrimore completed a Secretariat discussion paper on the development of an integrated safeguards approach for geological repositories. Mr. Larrimore reviewed the paper with the System Studies Section. This work is in the framework of Task C.118, which is a joint MSSP task initiated in 2005 as a continuation of SAGOR Phase II. The draft discussion paper included a summary of the recommendations by an Advisory Group in 1997 for the traditional safeguards approach, a summary of the characteristics of existing geological repository projects relevant to a model integrated safeguards approach, general assumptions concerning the application of safeguards to spent fuel repositories, principal elements of applying integrated safeguards to these repositories, and specific items for discussion at the ASTOR meeting to be held in October 2006.
C.113	Development of Techniques to Estimate the Separative Capacity of R&D Isotopes [USA C 1476 / W. Bush]				
		BNL/NCT	\$25,000.00	\$17,164.00	BNL's contribution to this task is complete.
		LANL	\$29,498.00	\$29,498.00	LANL's contribution to this task is complete.
		LLNL	\$55,000.00	\$51,094.49	The final report draft was reviewed by DOE Headquarters. Preparations are being made to authorize its release to the IAEA.
		ORNL	\$37,785.00	\$20,401.00	ORNL's contribution to this task is complete. Surplus funding under this task was redirected to Task A.265.

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C.115		Quality Management Specialist [USA C 1555 / D. Neal]	IAEA	\$250,000.00	\$113,896.05	The Corrective Action Procedure and Guideline has been approved by the Divisional Quality Managers. The procedure has been forwarded to the DDG for review and approval. The procedure scope addresses correction action with cause determination methodology being detailed in the guideline. Corrective action reports have been initiated as test cases to address three separate instances of nonconformity. Three continual process improvement working groups have been formed and are in the "Define, Measurement, and Analyze" phases of their respective processes. Improvements to the process of clearing IDPs should be implemented by the end of September. The 'Introduction to Quality Management' training is proceeding with a goal to having everyone in the Department trained by 31 December 2006.
C.116		Determination of Decommissioned Status of Facilities [USA C 1561 / Y. Touil]	BNL/NCT	\$130,000.00	\$21,744.00	This task is on stand by, due to the departure of BNL's principal investigator. A meeting was held on September 21, 2006, with ISPO and the subcontractor Sonalysts, to determine a path forward. ISPO and Sonalysts will discuss a possible change in scope for the contract with the Agency in Vienna during the week of October 16. The results of this discussion will be considered by ISPO, prior to continuing the
C.117		Expert - Enrichment Plant Safeguards [USA C 1571 / R. Fagerholm]	IAEA	\$250,000.00	\$165,065.98	There was no report submitted.
C.118		Application of Safeguards to Geological Repositories (ASTOR), Group of Experts [JNT USA C 1611 / M. Diaz Menendez]	ISPO	\$0.00	\$0.00	There was no activity this quarter. The ASTOR group is scheduled to meet in Vienna in October 2006.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
D.122		Systems Engineering Process for SGIT [USA D 1158 / G. Cherif]				
	D.122.01		CGE&Y	\$250,969.45	\$162,839.00	
						There has been no activity reported for this quarter.
	D.122.02		BIT	\$70,000.00	\$67,868.30	
						There has been no activity reported for this quarter.
	D.122.03		IAEA	\$70,000.00	\$0.00	
						There has been no activity reported for this quarter.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
D.137		Consultants - Assistance on Information Collection and Information Systems [USA D 1126 / V. Braguine]				
	D.137.01		BNL	\$16,000.00	\$0.00	Allen Locke - Mr. Locke consulted with the IAEA's Information Analysis Unit for two weeks in June-July 2006.
	D.137.01		BNLCONTR	\$10,000.00	\$0.00	
	D.137.01		ISPO	\$73,840.00	\$64,031.00	
	D.137.03		LANL	\$113,000.00	\$82,712.00	Jeff Bedell - Mr. Bedell was scheduled to consult at IAEA/SGIT for two weeks from September 25 to October 6, 2006.
	D.137.04		LANL	\$255,000.00	\$195,955.67	Arvid Lundy - Dr. Lundy completed consulting with IAEA's Division of Safeguards Information Technology (SGIT) for two weeks on June 23, 2006. He consulted again with SGIT for two weeks from June 26 to July 7, 2006. Dr. Lundy dealt with the methodology and use of scientific literature as part of SGIT's open-source collection and country evaluations. Under the current schedule, Dr. Lundy will consult again from November 6 to November 17, 2006.
	D.137.06		PNNL	\$246,000.00	\$245,963.60	Ned Wogman - Dr. Wogman developed, analyzed, and discussed open source information for SGIT, for two weeks in August 2006. His task was to develop sources, review publications, add evaluative assessments and comments, and complete evaluations of specific technologies developments. Mr. Wogman participated in multiple meetings based upon his written reports. He was asked to provide discussions on the 1994 and 1998 Wide Area Environmental Sampling (WAES) reports that he had written and briefed in 1995 and 1998/99 to the IAEA. US Mission representatives were briefed on the discussions. Mr. Wogman was asked to continue these types of efforts during subsequent visits and tasking. SGIT has asked him to work with them during multiple two-week periods in FY 2007. The dates will be confirmed with SGIT at a later date.
	D.137.07		BNLCONTR	\$66,000.00	\$25,047.00	Joyce van Berkel - Ms. Van Berkel consulted with the IAEA Information Analysis Unit for two weeks in July 2006. She is scheduled to consult for another two weeks in October.
	D.137.07		SNL	\$208,962.90	\$124,624.07	Joyce van Berkel - There was no activity this quarter. Ms. Van Berkel has been providing open-source consultancy to the IAEA Information Analysis Unit under a contract with BNL.

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	D.137.08	LLNL	\$197,000.00	\$149,890.28	George Anzelon - There was no activity reported for this quarter. Mr. Anzelon is scheduled to consult from October 9 to 20, 2006.
	D.137.09	LLNL	\$108,515.00	\$97,258.00	William Domke - There was no activity during this quarter.
	D.137.11	LLNL	\$159,982.27	\$120,618.03	Roger Miller - Mr. Miller consulted for two weeks from July 24 to August 4, 2006.
	D.137.12	LANL	\$117,000.00	\$92,071.85	Richard Wallace - Dr. Wallace consulted with the IAEA Division of Safeguards for two weeks from August 28 to September 8, 2006, to provide analysis of potential proliferation indicators.
	D.137.13	LLNL	\$62,500.00	\$29,969.00	Douglas Vogt - Mr. Vogt consulted for two weeks from September 11 to 22, 2006.
	D.137.14	LLNL	\$62,500.00	\$59,956.95	James Hassberger - There was no activity during this quarter.
	D.137.15	LLNL	\$0.00	\$0.00	Lisa Owens Davis - There was no activity during this quarter. This subtask is complete
	D.137.17	BNLCONTR	\$11,200.00	\$10,055.00	Caroline Mason - Ms. Mason consulted with the IAEA Information Analysis Unit for two weeks in September 2006.
	D.137.17	LANL	\$20,000.00	\$19,546.00	Caroline Mason - There was no activity this quarter.
	D.137.18	ISPO	\$0.00	\$0.00	Jacob Blackford - Mr. Blackford consulted with the IAEA Information Analysis Unit for four weeks in August and September 2006. He researched clandestine procurement networks.
	D.137.19	ORNL	\$0.00	\$0.00	Len Phillips - There was no activity during this quarter. The funding for this task has been redirected to Task B.082.
	D.137.20	ORNL	\$80,000.00	\$78,865.00	James David Snider - Mr. Snider consulted for SGIT from July 10 to 21, 2006. Dave worked as an Open Source Consultant under the direction of John Lepingwell, providing technical analysis.
	D.137.21	PNNL	\$22,000.00	\$13,088.00	Winston Little - There was no activity this quarter.
	D.137.22	BNLCONTR	\$3,500.00	\$2,743.00	

TaskID	Title Subtask [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
	D.137.22	M. Tatavosian	\$102,200.00	\$0.00	Maryam Tatavosian - Ms. Tatavosian began work as a BNL employee in August. She moved to Vienna in mid-August and has been working as a consultant to the IAEA's Information Analysis Unit.
	D.137.23	J. Essner	\$60,700.00	\$0.00	Jonathan Essner - Mr. Essner began a term assignment with BNL in July, working as a consultant at the IAEA Information Analysis Unit. He will work with the IAEA through January 2007.
	D.137.23	LLNL	\$56,000.00	\$59,278.52	Jonathan Essner - Mr. Essner continued his extended consulting assignment with SGIT-IIS under a new contract with BNL. He is assisting with the collection and processing of open source information on nuclear related trade.
	D.137.24	LANL	\$20,000.00	\$0.00	LANL Consulting - There has been no activity reported for this quarter.
	D.137.25	LLNL	\$15,000.00	\$0.00	LLNL Consulting - Roger Miller provided information analysis support in response to a specific request from SGIT-IIS.
	D.137.26	BNLCONTR	\$17,000.00	\$12,604.00	Siegfried Hecker - There has been no activity this quarter. Mr. Hecker has finished his assigned scope of work. The subtask is complete.
	D.137.27	SAIC	\$55,500.00	\$17,857.00	William Wanderer- Mr. Wanderer began work in September as a consultant to the Information Analysis Unit. He will work with the unit through December.

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D.141		Internship Program [USA D 1396 / A. Hamilton]				
	D.141.05		IAEA	\$176,577.48	\$104,690.28	Chris Dalton - Mr. Dalton worked on CIOSP (Common Inspection Onsite Software Package) 2. He has increased his involvement with the I3S project. With the restructuring of the Section for Hardware and Software, Mr. Dalton has been placed in the verification domain. The function of the verification domain is to consolidate all verification reporting software systems into one group and, perhaps in the future, to combine all the systems into one sort of verification dashboard, in which all systems are available to the user. Mr. Dalton finished the work on M7 and M9 reporting. The inspectors will have the ability to monitor change of flow of nuclear material from MBA to MBA. They will be able to apply different rules to each item within the sampling plan, allowing them to verify material distinctly. Mr. Dalton is working on the mailbox system, which is a system of automated scripted tasks that handle OPD deliveries by facilities. He is working on Non-Destructive Assay Review (NDAR) and traveled to LANL in July with I3S team members and Euriware. Mr. Dalton's role as configuration manager continues. In September the SSTS approved a one-year extension to Mr. Dalton's assignment.

TaskID	Title Subtask [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
	D.141.07	BNL/OEP	\$895,000.00	\$722,591.00	<p>2005-2006 Interns - Lauren Ginsberg and James Garner attended the INMM Annual Meeting in Nashville, Tennessee, in July, and presented their technical papers. Cathy Osiecki (BNL/Office of Educational Programs) made travel arrangements for them to Nashville. William Wanderer, Mark Laughter, and James Garner completed their internships in July 2006. Holli Hoerschelman completed her internship in August 2006. Sarmadi Almecci, Jeffrey Easley, Mike Fayer, Lauren Ginsberg, David Kamran, Patrick Lynch, Lawrence Taylor, and Santhosh Xavier completed their internships in September 2006. Ms. Osiecki made arrangements for their return flights and to close out their appointments. Shipping reimbursements for interns have been made as they return home.</p> <p>The USSP and BNL/OEP received confirmation from the IAEA of the cancellation of the Internship Program. The IAEA issued ten requests for Junior Professional Officers (JPOs) to the USSP in August. The existing internship database was modified to accept applicants for the JPO assignments. Ms. Osiecki contacted the existing applicants to the internship program to gauge their interest in applying for the JPO Program. All interested applicants were retained. Non-eligible and uninterested applicants were purged from the database. The database was made available to the IAEA to review candidates for various JPO positions. The IAEA notified ISPO in August of its selection of candidates for four of the ten positions. ISPO reviewed the selections, contacted the candidates to notify them of the results, and conducted an e-poll with the SSTS to obtain funding for the positions. A final outcome on these four positions is expected in the next quarter. This subtask is complete.</p>
	D.141.08	BNL	\$22,000.00	\$19,108.00	<p>Kimberly van Dyke - Ms. van Dyke presented a paper on standardized documentation for remote and unattended safeguards systems at the INMM Annual Meeting in Nashville, TN in July. This subtask is</p>
	D.141.08	LANL	\$45,800.00	\$44,605.49	<p>Kimberly van Dyke - LANL's scope of work related to this task is complete.</p>
	D.141.09	BNL	\$4,000.00	\$0.00	<p>Victoria Pratt - Ms. Pratt prepared a paper for the IAEA Symposium on International Safeguards: Addressing Verification Challenges. It was submitted to the IAEA for inclusion in the conference proceedings. The poster she prepared has been reviewed and is undergoing revision and completion. Ms. Pratt finalized her travel arrangements and submitted the necessary paperwork to NNSA for leave.</p>

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D.148		Expert - Special Technology Coordinator [USA D 1443 / M. Nicholas]	CFE	\$620,002.66	\$458,388.47	John Hilliard - On Project n-Vision, Mr. Hilliard continued implementation of link analysis and visualization software for Operations B and Operations C.. He scheduled another training course for link analysis users training. He drafted collaboration efforts for approval by Agency management. He gave a presentation on nVISION the Management Coordinating Meeting. He continued sub-project work utilizing the INIS database and link analysis software.He continued work with the Joint Research Centre in open source areas such machine language translation, duplicate removal, clustering, open source alert system (EMM), name variant and recognition software and data visualization. For the October Safeguards Symposium, he drafted a paper on "n-Vision" and invited advanced analysis tools vendors to participate. He has started work on an analyst's portal to be considered by senior management as deliverable for the Department of Safeguards. This would be fully integrated with the Open Source portal.
D.149		Specialist Training for IAEA's Imagery Analysts [USA B 1442 / F. Claude]				
	D.149.01		IAEA	\$8,501.00	\$8,501.00	SDI and GIS training - The IAEA has deferred additional training in satellite imagery analysis until work on the satellite imagery analysis laboratory upgrade has proceeded. This subtask is on stand by. The IAEA requested a new training course under this task in June 2006. The USSP is considering this request.

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D.150		Expert - Systems Analyst [USA D 1460 / J. Smith]	CFE	\$500,000.00	\$432,095.75	<p>Work continued on the Complementary Access 2.0 project. The final draft of the Safeguards Software Engineering Process (SSEP) requirements document is in the process of being finalized. All the requirements use-cases are being refined to include the extensions for the atypical usage scenarios. New use-cases have been defined and documented for the handling of Complementary Access follow-up actions. An initial follow-up actions system user-interface is being defined that will manage the follow-ups generated from a Complementary Access in a particular state. These Complementary Access follow-up actions are a subset of the follow-up actions that will be handled by the "State Level Follow-up Action" system. When the final "State Level Follow-up Action" system becomes available, the Complementary Access follow-ups will be integrated into that system. The initial migration planning has been defined in the requirements. The evaluation of the existing data model is complete and documented.</p> <p>The migration scenarios of the existing data model to the new data model have been documented. All core third-party web based components, except the document management solution, have been evaluated and decisions have been made on the vendor selection. Evaluation is still ongoing on the best choice for a lightweight integrated document and image management solution to replace Sharepoint 2001, since Sharepoint 2001 is no longer supported. The work on the ISIS Reengineering project to define a Consistent User Interface has been completed.</p>
D.151		IAEA Safeguards Information System Re-engineering Project [USA D 1461 / R. Kirkgoeze]	TBD	\$0.00	\$0.00	<p>This task provides a mechanism for POTAS-funded support to the ISIS Re-engineering Project. Non-POTAS support is tracked under task SP.62.</p>

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D.152		Software, Hardware and Database Provision for Satellite Imagery Analysis Support [USA D 1477 / S. Robb]	IAEA	\$100,000.00	\$0.00	The IAEA project team participated in numerous web-meetings for completing the System Design Review (SDR). A meeting was held at the contractor's facilities in Toronto (Canada) from September 8 to 9, 2006, with participants from GeoEye, Intergraph US, and Intergraph Canada. The implementation of the security protocol, the design of the user interface, the terms and conditions of the Factory Acceptance Test, and the structure of the database were discussed. The development of the Carterra Analyst V 6.0 system has begun. A prototype will be reviewed by the IAEA during a Prototype Review (PR) meeting at the contractor facilities in December 2006. This PR will allow the IAEA to make additional suggestions and recommendations before the full-scale system is developed. The Factory Acceptance Test (FAT) is still planned for January 2007. The delivery should occur on February 22, 2007, as anticipated. The training program to be delivered immediately after the installation of the system has been discussed and mutually agreed upon.
D.153		Junior Professional Officer for the JNFL Project [USA X 1513 / C. Creusot]	IAEA	\$220,000.48	\$130,233.50	This JPO assignment involves providing technical support in the implementation of safeguards at the Rokkasho Reprocessing Plant (RRP) by managing vendor software contracts, developing small in-house applications, and reviewing all documents that must pass through the internal Integrated Inspector Information System (I3S) Change Control Board. A status report for this assignment was not received for this quarter.
D.154		Expert - IAEA Safeguards Information System Re-engineering Project [USA D 1520 / J. Baute]	IAEA	\$300,000.00	\$157,679.96	The expert Richard Watts resigned in September and left the IAEA in early October 2006. The IAEA still needs assistance in support of the IRP project. This task will remain open until a new CFE is identified or a revised course of action is implemented.
D.155		Imagery Analyst [USA D 1519 / F. Claude]	IAEA	\$0.00	\$0.00	Recruitment for this position is on hold.

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D.156		Software Development Support: LIMS for the SAL [USA D 1523 / S. Balsley]	IAEA	\$55,000.00	\$55,000.00	The approved scope of work is complete. The USSP is waiting for a follow-on request from the IAEA.
D.157		Windows/Office 2003 Migration for Safeguards [USA D 1548 / R. Gronvius]	IAEA	\$87,750.00	\$0.00	Work has begun on the preparatory phases of the desktop migration project. Upgrading of essential software applications is underway, in order to ensure that staff will be able to continue to use safeguards software in the new environment.
D.158		Expert - Design, Development and Implementation of Data Collection and Evaluation Software for RRP [USA D 1556 / R. Gaetano]	IAEA	\$158,453.00	\$117,399.98	There was no report submitted.
D.159		Design and Definition for an Enhanced Information Analysis Architecture [USA D 1564 / M. Murray]	LLNL	\$25,749.24	\$25,749.24	There was no activity during this quarter.
			SNL	\$14,000.00	\$11,914.58	There was no activity during this quarter.
D.160		SPRICS 2.0 [USA D 1617 / V. Firbasova]	CAPGEMINI	\$165,000.00	\$0.00	The Agency accepted the 2006 US Voluntary Contribution in September 2006. As a result, the SPRICS 2.0 funds provided through the POTAS were allotted. The procurement action is in progress.
D.161		Expert - SALIMS Upgrade Project Leader [/]	CFE	\$200,000.00	\$0.00	The SSTS approved funding in July for the IAEA to hire Vera Kolton. In August, the IAEA offered Ms. Kolton a Cost-Free Expert (CFE) position as the Safeguards Analytical Laboratory Information Management System (SALIMS) upgrade project leader. She has not yet confirmed a start date.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
D.162		State-Level Follow-up Action System [/]	AWST	\$0.00	\$0.00	In August, the SSTS approved funding for the IAEA to hire AWST to conduct this work.
E.119		Upgrading of GARS Review Software and Software Factory Support [USA E 1249 / B. Wishard]				
	E.119.01		Aquila	\$110,000.00	\$63,500.00	Direct Services Contract for General Advance Review Software (GARS) Upgrades - This subtask is a IAEA direct service contract with Canberra Albuquerque to provide quick response to software upgrades for Canberra-designed GARS and related products. The IAEA has accepted the software release for DIS-SW-8, DCMLOG parser, and DIS-SW-9, GARS HDIS. After discussions with the IAEA, Canberra expects to receive three additional task requests next quarter, primarily focused on enhanced image data handling.

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E.122		URM Systems Standardization and Support [USA E 1274 / T. Pochet]				
	E.122.03		LANL	\$140,000.00	\$38,457.00	Performance Review Software - This subtask requires a major change of scope. ISPO has decided the best approach is to close this subtask and invite the IAEA to submit a letter request for continuation of this
	E.122.06		LANL	\$556,500.00	\$537,987.92	Auxiliary Communication Device (ACD) - LANL was funded to enhance the ACD firmware to include sub-second time/date stamping and to perform testing of these upgraded ACDs produced by Canberra Albuquerque, prior to use with the Rokkasho safeguards system. IAEA and SNL visited LANL for participation in Rokkasho ACD testing, which was completed successfully. LANL provided technical assistance to Canberra Albuquerque as ACD issues arose.
	E.122.08		LANL	\$157,000.00	\$112,849.29	Unattended Monitoring System Software Modifications - The remaining software changes for the Mobile Monitoring Container Transport (MMCT) nuclear safeguards system were investigated. The software tasks will be completed in October.
	E.122.11		LANL	\$121,000.00	\$89,777.14	Generic Software Components for the Chernobyl Conditioning Facility - Technical support was provided in addressing data continuity problems with the Mobile Monitoring Container Transport (MMCT) nuclear safeguards system. This task will be completed in October.
	E.122.12		LANL	\$241,077.00	\$64,210.36	Decomposition of Analysis Modules - There was no work performed on this task during this quarter.
	E.122.13		LANL	\$288,000.00	\$162,233.01	Control Board and Baseline Release Management and Support - The UNARM Software Control Board (USCB) has been inactive during most of this quarter. Formulation of Baseline 2 Revision 1 (B2R1) will be restarted during the last week in October.
	E.122.14		LANL	\$259,500.00	\$97,753.80	INCC and ISO COM Conversion - This subtask involves the conversion of IAEA Neutron Coincidence Counting (INCC) and Isotopic Review (ISO) codes into component object modules (COMs). Activity will increase on this subtask, following the completion of Subtask A.247.19 (Rokkasho COMs).

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E.122.15		LANL	\$55,000.00	\$13,264.82	Unattended Monitoring System (UMS) Software Support - This subtask provides the IAEA with continuous technical support regarding UMS software issues that need to be evaluated and corrected on an accelerated schedule. A few minor issues with the Unattended and Remote Monitoring Software were addressed by LANL during this quarter. Each issue or investigation that took place under this task was sufficiently minor and well below the twenty hour per issue limit as requested by SSTS/ISPO.
E.122.16		LANL	\$61,000.00	\$60,626.81	Baseline 2 Software Training - LANL briefed Bernard Wishard (IAEA) with the final report results during his visit to LANL in July 2006. Issues raised from the training were addressed. A list of the pending actions from the final report were discussed. LANL has indicated this subtask is complete. The IAEA agrees that this subtask can be closed.
E.122.17		LANL	\$34,000.00	\$25,373.47	Advanced Multiplicity Shift Register (AMSR) Upgrade - LANL has indicated work for this subtask is complete. ISPO will obtain IAEA concurrence prior to project closeout.
E.122.18		Aquila	\$32,500.00	\$31,930.00	Mini Analog to Digital Converter (MiniADC) - This subtask involves a firmware upgrade of the MiniADC by Canberra Albuquerque. The IAEA has concurred that this subtask is complete. ISPO will proceed with project closeout.
E.122.19		SNL	\$189,000.00	\$130,453.83	The purpose of this task is for Keith Tolk to continue to provide technical support to the IAEA in the area of equipment security. The majority of the work involved authenticating the Inspectorate's Jug Passage Detectors at the Rokkasho Reprocessing Plant in Japan. Govindaraj Rengarajan (IAEA) visited SNL in August to discuss plans for assembling, testing, and installing the equipment. Mr. Rengarajan and Dr. Tolk traveled to LANL to observe tests on the Advanced Communication Device boards, which will be used for this
E.125	Remote Monitoring and Unattended Digital Surveillance Systems [USA E 1330 / M. Aparo]				
E.125.13		LANL	\$69,000.00	\$28,499.00	Optional Imaging Sensor Development Support - Al Queirolo (ISPO) issued a stop-work request on this project. The scope change request made verbally by the IAEA several months ago has not been approved formally. ISPO needs an IAEA letter requesting the change in scope, before LANL can continue with any further software upgrades for the review software (iDVR) that was under development. LANL is awaiting resolution of this issue by the IAEA and ISPO/SSTS.

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E.127		Expert - Remote Monitored Surveillance Systems Development and Implementation Coordination (Regula) [USA E 1350 / B. Wishard]	CFE	\$724,700.00	\$581,074.36	<p>Eleven VIFM systems in Canada were upgraded from simple telephone line communications to xDSL (Digital Subscriber Line). This will make the data transfer more efficient and eliminate the use of telephone lines at all Canadian installations.</p> <p>A satellite test was performed demonstrating the ability to run video conferencing from fixed and mobile satellite systems with Vienna headquarters all over VPN. This system will undergo a field test sometime in the next 6 months to prove its feasibility to be deployed in short notice in areas where communications infrastructure is undeveloped.</p> <p>Progress was made in developing a system for data sharing with electronic declaration submission in anticipation of remote monitoring in Japan.</p> <p>The remote monitoring (RM) unit has taken over responsibility for teaching the RM ICAS lecture. The first successful presentation was given on June 30th.</p>

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E.133		Factory Support for DIS [USA E 1108 / B. Wishard]				
	E.133.02		Aquila	\$398,125.91	\$390,723.83	Kent Brown and Anthony Gonzalez continue to provide factory support for the IAEA's existing digital imaging surveillance (DIS) systems. Mr. Brown continued working on the review software design for the Next Generation Surveillance System (NGSS). GARS was presented and discussed with the participating inspectors, as part of the CANDU reactor training course. Radiation testing for PC cards to be used with the DCM-14 units was carried out at the Prater Institute. Mr. Gonzalez continued testing and upgrading DIS equipment for field use. He is preparing systems and is involved in the planning for GEMINI replacement and DSOS installations in EURATOM countries. Mr. Gonzalez traveled to Luxembourg to perform acceptance testing of Euratom DSOS units.
	E.133.03		Aquila	\$134,000.00	\$133,946.32	Additional Factory Support for DIS - Vio Popescu continued assisting SGOC3 in activities required to complete the task of replacing GEMINI systems with DSOS, and BDIS with Quattro Digital Imaging Systems (QDIS), including concept design, planning, coordination, and site surveys. The GEMINI replacement continued, using the DSOS systems ordered by EURATOM. The first five QDIS are ready for replacing BDIS. Hawk-SG-based Digital Imaging Surveillance (HDIS) system testing and authorization was ongoing. Development of a modular DC-UPS and integration of the PIP9 industrial computer in a 19-inch medium-size cabinet was ongoing. The ALIS with remote small-camera-housing solution was extended by adding a small underwater camera as an option. Mr. Popescu traveled for repair, preventative maintenance, and upgrade of SDIS and DMOS systems.
	E.133.04		IAEA	\$286,000.00	\$0.00	The SSTS approved funding in May for the IAEA to supplement its staff with two contractors from Canberra Albuquerque (CA) for twelve months, beginning July 1, 2006. CA awaits a purchase order from the IAEA for this task.
	E.133.05		IAEA	\$67,000.00	\$0.00	

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E.134		Mobile Safeguard System for SF Transportation from Chernobyl NPP to Conditioning Facility [USA E 1375 / G. Ingraio]				
			IAEA	\$55,000.00	\$55,000.00	
	E.134.01		SNL	\$814,355.28	\$780,871.53	The MMCT hardware returned to SNL from Chernobyl was found to have radioactive contamination that precludes shipping it directly to Canberra Albuquerque (CA). A decision was made to decontaminate the hardware that is needed for the next system, which could be cleaned for less than the replacement cost. The recovered equipment will be sent to CA. All remaining hardware will be disposed of at SNL. It is expected that the decontamination will take place in October or November 2006. Issues related to the performance of the upgraded MMCT are being discussed between the IAEA and CA. The IAEA may make a request for further assistance.
	E.134.02		LANL	\$259,295.00	\$259,295.00	
	E.134.03		Aquila	\$121,250.00	\$98,403.00	
E.135		Safeguards Systems for Chernobyl SF Long Term Dry Storage (Part 3/3 of Chernobyl Transfer and Conditioning Campaign) [USA E 1376 / G. Ingraio]				
	E.135.01		LANL	\$3,923.00	\$3,923.00	This task is on stand by.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.137		Next Generation Camera Module and Server-Based Surveillance Systems [JNT USA E 1437 / B. Wishard]				
	E.137.01		Sonalysts	\$109,666.00	\$116,207.00	Colin Carroll (Sonalysts) worked with representatives of Canberra Albuquerque (CA) and the IAEA to update the NGSS project schedule. The NGSS project is behind its original schedule due to funding delays. Project funding is once again in place and CA and Dr. Neumann Consultants have continued work. Mr. Carroll has drafted a project management plan that details the project organization, roles and responsibilities, administration, policy issues, and the project
	E.137.02		Aquila	\$160,000.00	\$148,647.00	
	E.137.03		IAEA	\$299,000.00	\$0.00	NGSS Phase 2 - Development of hardware (IDG prototype and data consolidator) and software (review application) is on-going. An NGSS meeting was held in Pulheim, Germany, on September 25, 2006, to decide on the direction of the Data Consolidator (DC) development. The radiation requirement for the DC environment was reduced from standard application to natural background environment, to allow for the use of a commercial off-the-shelf operating system. The next meeting is scheduled for January 17, 2007.
E.139		Expert - Digital Image Surveillance, Unattended Monitoring System Integration and Remote Monitoring Systems Engineer [USA E 1463 / B. Wishard]				
			CFE	\$529,900.00	\$416,840.92	This CFE worked on the Lithuania Remote Monitoring Project. All the Server Digital Information Systems (SDIS) were upgraded to Version 3. Hot testing on the Lithuania Reactor Fuel Transfer Project was completed. Four fuel transfers have been successfully monitored. Minor problems with the gamma detection system have been investigated and slight modifications were completed. Based on the limited testing (limited with regard to fuel burn up), the system should detect nearly all of the fuel being transferred. Further testing is required to determine the lowest level of burnup that can be detected. The South Africa Power Monitor system was upgraded to have redundant computers and redundant neutron counting with watchdogs, UPS, and UPS bypass relays installed. During the upgrade effort, it was found that the He3 detector preamplifier was defective and this component was replaced.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.140		Enhancement of Cobra Fibre Optic Seal System [USA E 1475 / G. Weeks]	IAEA	\$725,200.00	\$344,200.00	This task will improve the usability and reduce the vulnerability of the COBRA seal system (seal and verifier) used by IAEA safeguards inspectors. The IAEA has a direct contract with Canberra Albuquerque for this task. Production of the first prototype units is on-going. Testing with the seal identification method has begun. The generation of the documentation package has commenced. The design review meeting for Phase III is scheduled for December 18, 2006. The SSTS approved final Phase 4 funding for this task.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.143		Junior Professional Officer - Engineers Support to Unattended Monitoring [USA E 1531 / B. Wishard]	IAEA	\$230,000.20	\$125,809.59	

Title		Organizatio	Total Budget	Total Spent	Comments
TaskID	Subtas [Agency# / Task Officer]				
					<p>During this past quarter, this JPO teamed up with US consultants (Canberra Albuquerque and Sonalysts, Inc.) and LANL to complete the Chernobyl Shelter Access Point Monitoring System Installation on August 4, 2006. This was a continuation of efforts started in 4th Quarter 2005. This system consists of 3 detector enclosures and a collect computer cabinet. Each detector enclosure houses a MiniGRAND with a neutron slab detector, a MiniADC with a sodium-iodide detector, 2 DiLON cameras with Arctic Night cameras, all associated electronics, and batteries. A significant vulnerability was removed by eliminating the possibility of injecting signals into the instruments when the detectors and associated instruments were enclosed in one seal boundary. The collect computer cabinet consists of an HP DL380 server, which has redundant disks and highly failure tolerant electronics. A failover box ensures that should there be some catastrophic failure in the system, then it would reboot the server in unattended mode. Also, should there be a transient or even continued power failure, the uninterruptible power supply has backup battery power, such that not only would the system shut down in a controlled manner, it would also periodically start up on battery power to retrieve safeguards data from the instruments before their local battery backed up memory would fill up.</p> <p>The installation was a success, and also marked the first implementation of a spectral analysis unattended monitor for tracking the movement of nuclear materials. The Agency has identified a need for better documentation for the systems installed at Chernobyl Unit 4 Shelter, Chernobyl Unit 3, and the BN-350. In response, the entire Access Point Monitor team created a first attempt to answer the needs with respect to SGTS's needs by drafting a preliminary "installation document". A similar and related need was identified for the Operations Divisions, with particular focus on description of equipment, its purposes and a methodology of review of data. At the conclusion of the Access Point Monitoring Installation trip, the Deputy Technical Director for Safety at Chernobyl, Mr. Alexander Novikov met with Agency personnel to discuss future plans for the site. During the meeting, he confirmed that Framatome was no longer on contract for the construction and design of the Conditioning Facility. A high-level meeting reviewing technical analyses done on drying fuel will be presented by Holtec, International and discussed by a panel of technical experts at a meeting in London to take place on September 27. In addition, the site is still awaiting designs for both the New Safe Confinement and a now also a new Railcar to replace the current one. Tentative plans to have a meeting with Chernobyl representatives in December in Vienna to discuss lessons learned in site surveys for monitoring equipment at Unit 4 Shelter Reactor Hall are under way. Agency representatives and Chernobyl Site Physical Security conducted site surveys for the Reactor Hall of Unit 4 Shelter; now that the Access Point Monitoring System is complete, the next phase for safeguarding the Shelter is to revisit this issue. First we must revisit the lessons learned from the first site survey. Next, we should develop future plans of approach for the second site survey; procure necessary items for this site survey. From data gathered from the second site survey, a technical approach should be identified and implemented no later than 4th Quarter 2007 or 1st quarter 2008, in anticipation of the increased workload in 2008 at Chernobyl for the implementation of safeguards at other facilities (NSC, CF) at this site.</p>

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.144		Ultrasonically Interrogated Metal Seal [USA E 1532 / M. Goldfarb]	INL	\$15,000.00	\$14,402.00	INL's work on this task is on stand by, pending further authorization and funding.
			PNNL	\$120,577.00	\$119,616.88	The feasibility study using an acoustic method for performing an in-situ verification of the existing IAEA metal cup seal is completed. A follow on task has been submitted by the IAEA. ISPO is in the process of submitting this follow on request to the SSTS for a funding decision.
E.145		VOID-3 Vulnerability Assessment [USA E 1533 / H. Undem]	LANL	\$296,000.00	\$251,436.73	The LANL Vulnerability Assessment Team continued to explore vulnerability issues for the IAEA VOID-2 adhesive label seal. They continued to evaluate new candidate adhesive label seals developed by a private company under IAEA contract. The vulnerability assessment is now ninety-five percent complete. The IAEA postponed a LANL project briefing visit to the IAEA until November or December 2006. No technical problems have been encountered.
E.146		Feasibility Study for Change Detection Software Applied to Metal Seal Signatures [USA E 1534 / H. Undem]	INL	\$52,000.00	\$49,005.00	The Change Detection Software (CDS) feasibility study task was completed. The IAEA has submitted a follow on request. ISPO is in the process of submitting this follow on request to the SSTS for a funding decision.
E.147		MMS Software Update [USA E 1535 / G. Weeks]	SNL	\$33,000.00	\$19,667.30	This task involves the possible upgrade of the Material Management System (MMS) software located at the K-Area Material Storage (KAMS) facility at Savannah River. SNL is examining the possibility of writing a new, less complicated, review software package, instead of modifying the existing software code. SNL will send a draft document describing the requirements for the new system to the IAEA during October. ISPO is awaiting a proposal submittal from SNL for the new software option. ISPO and the IAEA will evaluate the two SNL software proposal options. ISPO will make a proposal recommendation to the SSTS.
			SRNL	\$8,000.00	\$0.00	Please see Task E.147, contractor: SNL.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.148		Expert - Senior Sealing Systems Engineer [USA E 1545 / M. Zendel]	CFE	\$230,430.00	\$106,838.22	This CFE task involves the development of new seals for the IAEA. A novel and promising new technology laser surface authentication (LSA) will be evaluated formally as a potential complement and/or replacement for the existing metal seal optical signature. Formal documentation with respect to ultrasonic approaches to metal cup seal and wire verification methods have been reviewed and recommendations have been made. The IAEA wants to suspend all work associated with acoustic extraction of the metal seal optical signature. The IAEA has decided to pursue formally a successfully demonstrated wire verification technique using eddy current methods. The adhesive seal replacement (VOID-3) selection is in process. Work remains in progress on planning the 2007 Sealing Systems and Containment Verification Technical Meeting. The assistance of a facilitator has been requested.
E.149		Vulnerability Assessment of the "Sign and Forward System" (SNFS) [USA E 1581 / A. Alessandrello]	SNL	\$179,000.00	\$57,463.07	The purpose of this task is to complete an independent vulnerability assessment (VA) of the Sign and Forward System (SNFS) developed by the IAEA, with primary emphasis on the software. The SNFS will provide the IAEA with a secure means of adding authentication signatures to data files and transferring them between computers. SNL is waiting for the IAEA to finalize the SNFS software before starting the
E.150		Development of a Conduit Monitoring System [USA E 1588 / G. Weeks]	ORNL	\$194,000.00	\$54,580.00	ORNL is developing an enhanced distributed capacitance sensor system, employing Electrical Signature Analysis (ESA) to detect tampering of IAEA conduit and cable hardware. The intelligence module for the system was further developed. An in-depth auto learn mode has been developed, which allows the software to learn the signatures of benign noise sources associated with a particular installation. When switched to the monitoring mode, the system evaluates potential tampering signatures against those acquired during the auto-learn and other modes. The intelligence module includes a multi-layer graphical user interface. A user's manual was developed.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.151		Vulnerability Assessment of the Tamper Indicating Foil [USA E 1608 / G. Weeks]	SNL	\$79,000.00	\$11,194.15	The purpose of this task is to complete an independent vulnerability assessment (VA) of the tamper indicating foil, proposed for all newly developed safeguards field equipment used by all IAEA Operations Divisions. SNL has received foil seal parts and is in possession of two complete seals. SNL is waiting for the seal manufacturer to provide the firmware version for the complete seal. The project work area has been identified. Test software has been obtained. SNL is ready to load software into the computer and begin system testing.
E.152		New Shift Register Development [USA E 1613 / T. Pochet]				
	E.152.01		LANL	\$169,000.00	\$63,314.40	This task will design and produce a new prototype shift register multiplicity board (SRMB), which is needed by the IAEA for unattended monitoring applications, as a replacement of the obsolete JSR12 and the Advance Multiplicity Shift Register. The entire shift register and multiplicity design has been compiled into one set of programs. Many of the modules that make up these programs have been simulated individually. A test bench simulation program has been written, based on the original master processor board firmware. This program simulates all signals expected to come from the original master processor board via the expansion bus. Simulation is in progress using this test bench program. The hardware specification is complete. It has been reviewed and accepted by Canberra Albuquerque. A circuit board design is in the works. The new circuit board is made up of three parts: the field programmable gate array (FPGA), the input circuit, and the power supply circuit. The input circuit and the power supply circuit are complete. Some work remains on the FPGA circuit.
	E.152.02		Aquila	\$127,250.00	\$0.00	Commercialization of New Shift Register Multiplicity Board (SRMB) - Canberra Albuquerque has been contracted by ISPO to produce the commercialized version of the new SRMB. LANL is developing the new SRMB. Initial specifications have been agreed to by Canberra Albuquerque and LANL. LANL is working on the SRMB firmware and software.
F.032		Consultant - Services Safeguards Issues (R. Hooper) [USA C 1134 / J. Cooley]	IAEA	\$606,858.00	\$560,063.00	There was no activity this quarter.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
F.036		Fixed Term Assistant - Procurement Services [USA F 1472 / A. Hamilton]	IAEA	\$531,000.00	\$374,455.15	Contracts related to the ISIS (IAEA Safeguards Information System) Re-engineering Project (IRP), the Rokkasho Reprocessing Plant (RRP), Chernobyl Monitoring Systems, and other Safeguards projects are being managed. Under the IRP, change requests were submitted to the procurement action committee (PAC) and were approved. The contract amendment for all changes (Numbers 1 - 7) has been requested from the Office of Legal Affairs. The IAEA decided to procure the production environment portion of the physical architecture directly, rather than through Cap Gemini. An order has been issued to Global Knowledge for ancillary IRP training. With respect to RRP, SMSS support for the I3S project was submitted to the PAC and it was approved. Other proposals related to PIMS, I3S, and ISOCS were requested and are under evaluation.
F.037		SAL Feasibility Study Workshop [USA F 1620 / S. Balsley]	IAP	\$13,000.00	\$0.00	
			John Cappis	\$9,000.00	\$0.00	
			Sonalysts	\$86,500.00	\$36,769.00	Colin Carroll (Sonalysts) met several times with the IAEA's coordinators for a workshop on the need for infrastructure upgrades at the Safeguards Analytical Laboratory (SAL). Mr. Carroll has conducted interviews with IAEA staff on the needs for, and requirements of, SAL. He drafted a working paper and agenda for the workshop, in coordination with the IAEA. The workshop is scheduled from November 27 to 30. Mr. Carroll will facilitate the workshop.
S.026		The Design and Development of an Orientation Course for U.S. CFEs and IAEA Staff [USA X 943 /]	ISPO	\$395,487.00	\$395,487.00	Jeanne Anderer delivered the final versions of the intern and CFE/regular staff guidebooks in July. ISPO designed a cover. The guidebook was printed in September. The new guidebook is available for distribution. It has been placed on the ISPO website.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.037		ISPO Recruitment Program [USA X 942 /]	ISPO	\$276,422.00	\$276,521.00	ISPO staff, Christine O'Brien (ANL), and Catherine Monzel (Head of the Recruitment and Staff Development Section in the IAEA's Division of Personnel) distributed information on IAEA job opportunities at the INMM 47th Annual Meeting held in Nashville, Tennessee. Ms. Monzel gave a presentation on working at the IAEA at several of the INMM's Technical Division meetings and answered questions during the tradeshow from interested candidates. Donna Occhiogrosso (ISPO) presented a poster on Recruitment of US Citizens for Vacancies in IAEA Safeguards. A video conference call involving ISPO, LANL, the State Department, DOE, and the US Mission was held to complete the discussion of ISPO's White Paper on Obstacles to Recruitment. ISPO is drafting a plan to identify issues that have been addressed, actions that are being taken, and recommendations to resolve concerns.
S.049		IAEA Travel for US Support Program Tasks [USA X 1306 / A. Hamilton]	IAEA	\$1,916,112.33	\$1,744,121.07	This task provides funding to the IAEA for task-related travel. The SSTS responds to quarterly travel projections compiled by the IAEA's Support Program Administration.
S.053		Non-Proliferation and Disarmament (NDF) Funding for SG Equipment [USA X 1342 / A. Reynaud]	IAEA	\$3,106,639.00	\$3,106,639.00	This task was established to track the expenditure of funding provided through the Nonproliferation and Disarmament Fund (NDF) in 2000. The NDF office approved funding in 2000 for the procurement of equipment for the geospatial laboratory and digital image surveillance. The funding has been expended and the task can be closed.
S.057		USVC Funding in 2001 for SG Equipment [USA X 1393 / A. Reynaud]	IAEA	\$10,154,770.44	\$9,301,741.82	This task was established to track the IAEA's expenditure of funding provided in the 2001 US Voluntary Contribution for the procurement of Safeguards equipment.
S.060		Contracts Labor Charge [/]	ISPO	\$271,707.00	\$267,308.00	This task provides funding for the labor charges that are incurred by the BNL Procurement and Property Management Division, while executing contracts and purchase orders for USSP tasks.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.061		2002 U.S. Voluntary Contribution for Safeguards Equipment [USA X 1490 / A. Reynaud]	IAEA	\$6,634,575.73	\$5,613,696.39	This task was established to track the expenditure of the 2002 US Voluntary Contribution for Safeguards equipment.
S.062		ISIS Reengineering [USA X 1491 / M. Strohmayer]	IAEA	\$9,069,516.67	\$358,741.00	This task was established to track US Voluntary Contributions to the ISIS Re-engineering Project (IRP).
	S.062.01		IAEA	\$612,943.33	\$412,943.33	Cap Gemini is delivering Version 1.1 of the software. The IAEA will use it for the IRP phase III project, in order to integrate it into the new infrastructure. The performance problems we experienced with version 1.0 will be fixed within the IRP phase III project. This will provide a fully operational NPT QC Loader, within IRP infrastructure, for the end of 2007.
S.065		NDF 2002	IAEA	\$4,157,661.00	\$3,610,408.00	This task was established to track the expenditure of funding provided through the Nonproliferation and Disarmament Fund (NDF) in 2002. The NDF office approved funding for high priority NDA and surveillance equipment. ISPO, the IAEA, and the State Department's NDF office are working together to expend the remainder of the funding and to close out the account.
S.066		2003 USVC for Safeguards Equipment [/ A. Reynaud]	IAEA	\$7,700,000.00	\$3,742,170.82	This task was established to track the IAEA's expenditure of funding provided in the 2003 US Voluntary Contribution for the procurement of Safeguards equipment.
S.069		2004 USVC for Safeguards Equipment [/ A. Reynaud]	IAEA	\$4,359,600.00	\$1,996,922.98	This task was established to track the IAEA's expenditure of funding provided in the 2004 US Voluntary Contribution for the procurement of Safeguards equipment.

TaskID	Subtas	Title [Agency# / Task Officer] NDA Training Course Relocation [/ P.Hypes]	Organizatio	Total Budget	Total Spent	Comments
S.071			IAEA	\$5,000.00	\$0.00	
			INL	\$45,000.00	\$31,039.00	The requested and authorized work was completed during the second quarter of 2006. No further work is scheduled, pending further direction from ISPO.
			ISPO	\$36,000.00	\$13,861.00	
			LANL	\$23,500.00	\$23,500.00	
			SRNL	\$4,000.00	\$0.00	
S.073		2005 USVC for Safeguards Equipment [/ A. Reynaud]	IAEA	\$4,241,850.41	\$0.00	This task was established to track the IAEA's expenditure of funding provided in the 2005 US Voluntary Contribution (USVC) for the procurement of Safeguards equipment. When use of this funding was reviewed and approved by the SSTS in May 2005, the SSTS asked that the IAEA use remaining funding from previous years before using the 2005 USVC funding. This will ensure that previous years' funding is expended completely.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.075		Safeguards Tools for the Future [/]				
			BNL/NCT	\$11,000.00	\$9,313.00	
			INL	\$9,500.00	\$9,879.00	
			ISPO	\$17,000.00	\$0.00	
			LANL	\$20,000.00	\$19,488.00	
			LLNL	\$12,622.97	\$12,622.97	
			ORNL	\$9,908.00	\$9,908.00	
			PNNL	\$12,000.00	\$11,767.04	
			SNL	\$17,000.00	\$16,890.47	
			Sonalysts	\$103,000.00	\$93,833.00	
						Colin Carroll (Sonalysts) and the Section Heads for Installed Systems, Infrastructure Support, and Hardware and Software Services drafted a vision statement, which defined the goals for developing future safeguards communications tools and described the strategic paths that the IAEA could take to implement the vision. This document will be used to orient senior IAEA managers so that they have a basis for determining the IAEA's technology strategy. Once the technology strategy is approved by the Safeguards' Management Coordinating Committee (MCM), the SGIT and SGTS Section Heads can decide which technologies they should consider to implement the strategy. The IAEA's technology strategy is based on the recommendations made by the Safeguards Tools of the Future workshop participants in October 2005. The strategy builds on the work already begun under the ISIS Re-engineering Project and n-Vision. The strategy extends the technologies being developed under these projects, by developing the communications infrastructure necessary for inspectors to communicate from the field using secure voice and to transmit large data files, such as video images, securely. The commercial markets have presently, or soon will have, tools available that can be used by the IAEA to improve inspector communications, as envisioned in the technology strategy document. These tools will have to be tailored for IAEA use and tested. If successfully implemented, these new communications capabilities will help safeguards inspectors perform their jobs more effectively.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.077		Web-based ISPO Information System [/]	LANL	\$100,000.00	\$90,416.19	Staff from LANL's Information Systems and Analysis Development (ISAD) presented a first draft of the ISPO Information System at the POTAS Coordinators Meeting during the INMM Annual Meeting in Nashville in July 2006, and at the SSTS Meeting in August at LANL. ISAD hosted ISPO for three weeks during August and September, as a next step in finalizing the system. ISAD worked with Bonnie McGahern and Michele Rabatin (ISPO) in August on the financial section of the system. Their input helped ISAD produce several forms for that section. ISAD is now working with them to develop a data entry form. ISAD hosted Al Queirolo and Donna Occhiogrosso (ISPO) for two weeks in September. ISAD reviewed all aspects of the system, revised several areas, and began finalizing the design of the system. ISAD provided ISPO with a schedule for development work, beta testing, and the population of the system with actual data that will be conducted during October, November, and December. ISPO has begun testing finished sections.
S.078		Meeting on the Application of Laser Spectrometry in IAEA Safeguards [/]	A. Mantz	\$7,000.00	\$6,374.00	Arlan Mantz attended the meeting on Safeguards Applications of Laser Spectrometry at the IAEA in August.
			Univ of OK	\$6,500.00	\$5,437.00	Patrick McCann (University of Oklahoma) attended the meeting on Safeguards Applications of Laser Spectrometry at the IAEA in August. He was selected to chair one of the working groups during the meeting. This task is complete.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.079		Facilitation for Sealing Systems and Containment Verification Workshop [/]	Sonalysts	\$78,000.00	\$2,053.00	The IAEA is organizing a workshop to set out a roadmap for the future use of new technologies to support sealing and containment verification. The workshop will convene a group of technical experts from government, academia, and private industry, to review the Section for NDA Equipment and Seals' (SGTNS) research and development efforts, and to assess emerging technologies and methods for sealing and containment verification. The participants will recommend a path forward to assist the IAEA in its quest for the most cost effective and secure systems. The workshop is scheduled from February 12 to 16, 2007, at IAEA Headquarters. Colin Carroll (Sonalysts) worked with experts from SGTNS to establish the goals for the upcoming Seals workshop, to organize the workshop activities, and to identify the scenarios that will form the basis for the discussions at the workshop. Mr. Carroll interviewed selected representatives from the Operations Divisions, to solicit their opinions of the greatest challenges they face when applying seals and containment verification in the field.

POTAS CONSULTANTS AND COMPANY REPRESENTATIVES

NAME	TASK #	TASK TITLE	AFFILIATION	TELEPHONE #
Bloodworth, Diane	D.122.02	Systems Engineering Process for SGIT	BIT, Inc.	703-295-9700 Ext. 105
Carroll, Colin	B.88 B.98 C.111 E.137 F.37 SP.79	Enhanced Communication Skills Enhanced Observational Skills Safeguards System for Chernobyl Unit 4 Next Generation Camera Module and Server-Based Surveillance Systems Feasibility Study on Upgrading SAL Infrastructure Facilitation of Sealing and Containment Workshop	Sonalysts, Inc.	860-326-3799
Dinkel, Andreas	D.160 SP.62	SPRICS 2.0 ISIS Re-engineering Project	Cap Gemini Ernst & Young	43-1-211-63-8717
Hooper, Richard	F.32	Consultant - Services Safeguards Issues	Wind River Consulting	360-573-4650
Hamilton, Bernie	B.90	Workshop on Quality Assurance Techniques	STAT-A-MATRIX	732-906-6150
Stein, Marius	E.119.01 E.133 E.134 E.152.02	Factory Support for GARS Factory Support for DIS Mobile Safeguard System for SF Transportation from Chernobyl NPP to Conditioning Facility New Shift Register Commercialization	Canberra Albuquerque	505-828-9100 Ext. 3841
Larrimore, Jim	C.112	Consultant - Development Support for Integrated Safeguards	Private	858-509-9604
Nunn, Hannah	B.99	Physical Inventory Taking Computer Based Training	Battelle Corporate	614-424-6151
Wuester, Jan	D.146	Quality Control Verification Software for Member States Nuclear Material Accounting Reports	SAIC/AWST	43-1-586-1314

U.S. – ISPO/IAEA EXPERTS

TASK	NAME	TITLE	START (First Contract)	END	SUPERVISOR
A.266	Langner, Diana	Unattended and Integrated Monitoring Systems	July 31,2006	July 30, 2008	Zendel
B.101	Hypes, Philip	Expert - Senior Instrumentation Specialist - Training in NDA Equipment and Procedures	July 4, 2005	July 3, 2007	Hamilton
C.115	McCullough, Richard	Expert - Quality Management Specialist	January 2006	January 2008	Patten
C.117	Uzzle, Michael	Expert- Enrichment Plant Safeguards	February 13, 2006	February 12, 2008	Fagerholm
D.148	Hilliard, John	Expert - Special Technology Coordinator	November 3, 2003	November 2, 2007	Nicholas
D.150	Miller, Scott	Expert - Systems Analyst	February 2, 2004	February 4, 2008	Smith
D.153	Gerrein, Gregory	JPO for the JNFL Project	July 4, 2005	July 3, 2007	Johnson
D.158	Damico, Joseph	Expert - Design, Development and Implementation of Data Collection and Evaluation Software for RRP	January 1, 2006	July 2007	Gaetano
D.161	Kolton, Vera	Expert – SALIMS Upgrade Project Leader	November 2006	November 2008	Schmitzer
E.127	Regula, James	Expert - Remote Monitored Surveillance Systems Development and Implementation Coordination	May 13, 2002	May 12, 2008	Wishard
E.139	ReFalo, Lee	Expert - Digital Image Surveillance, Unattended Monitoring System Integration, and Remote Monitoring Systems Engineer	April 11, 2004	July 10, 2007	Wishard

U.S. – ISPO/IAEA EXPERTS (Cont'd)

TASK	NAME	TITLE	START (First Contract)	END	SUPERVISOR
E.143	Wilson, Nina	JPO - Engineers Support to Unattended Monitoring	July 12, 2005	July 11, 2007	Wishard
E.148	Undem, Halvor	Expert - Senior Sealing Systems Engineer	February 1, 2006	January 31, 2008	Zendel
F.36	Beauparlant, Phil	Fixed Term Assistant - Procurement Services	July 1, 2004	July 1, 2007	Hessling

LIST OF POTAS LABORATORY REPRESENTATIVES

ACRONYM	ORGANIZATION	CONTACT	TELEPHONE #
ANL	Argonne National Laboratory	Charles Roche	630-252-3432
BNL	BNL - Nonproliferation and Counter Terrorism	Jae Jo	631-344-2337
EML	Environmental Monitoring Laboratory	Paul Goldhagen	212-620-3645
INL	Idaho National Laboratory	Pete Wells Trond Bjornard	208-533-7152* 208-526-6328
ISPO	International Safeguards Project Office	Susan Pepper	631-344-5979
KCP	Kansas City Plant	Douglas Byron	816-997-7201
LANL	Los Alamos National Laboratory	Kelly Michel	505-665-1606
LLNL	Lawrence Livermore National Laboratory	George Anzelon Mona Dreicer	925-422-5038* 925-422-7588
LMIT	Lockheed Martin Idaho Technology	John Hartwell	208-526-9366
NBL	New Brunswick Laboratory	Jon Neuhoff	630-252-2492
NNSI	Nonproliferation and National Security Institute	Kristin Kuzinski	505-845-5170 Ext. 133
ORNL	Oak Ridge National Laboratory	Diane Fischer	865-241-3116
PNNL	Pacific Northwest National Laboratory	Carrie Mathews Jennifer Tanner	509-375-6783 509-375-6626*
PTH	Protection Technology Hanford	Steven Schlegel	509-372-1495
SNL	Sandia National Laboratories	Keith Tolk John Olsen	505-845-2306* 505-284-5052
SRNL	Savannah River National Laboratory	Susan Collins Al Boni	803-725-4474 803-725-2628*
STL	Special Technologies Laboratory	Steve Koppenjan	805-681-2453